3/25/01 163:

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/499,468

DATE: 03/16/2001
TIME: 15:36:20

Input Set : D:\PF112U1.txt

Output Set: N:\CRF3\03162001\1499468.raw

3 <110> APPLICANT: Rosen, Craig et al, 6 <120> TITLE OF INVENTION: Vascular Endothilial Growth Factor 2 8 <130> FILE REFERENCE: PF112U1 10 <140> CURRENT APPLICATION NUMBER: 09/499,468 11 <141> CURRENT FILING DATE: 2000-02-07 13 <150> PRIOR APPLICATION NUMBER: 60/119,179 ENTERED 14 <151> PRIOR FILING DATE: 1999-02-08 16 <150> PRIOR APPLICATION NUMBER: 60/119,926 17 <151> PRIOR FILING DATE: 1999-02-12 19 <150> PRIOR APPLICATION NUMBER: 60/137,796 20 <151> PRIOR FILING DATE: 1999-06-03 22 <150> PRIOR APPLICATION NUMBER: 60/171,505 23 <151> PRIOR FILING DATE: 1999-12-22 25 <160> NUMBER OF SEQ ID NOS: 39 27 <170> SOFTWARE: PatentIn version 3.0 29 <210> SEQ ID NO: 1 30 <211> LENGTH: 1674 31 <212> TYPE: DNA 32 <213> ORGANISM: homo sapiens 34 <220> FEATURE: 35 <221> NAME/KEY: CDS 36 <222> LOCATION: (12)..(1268) 38 <220> FEATURE: 39 <221> NAME/KEY: mat\_peptide 40 <222> LOCATION: (81)..() 42 <220> FEATURE: 43 <221> NAME/KEY: sig\_peptide 44 <222> LOCATION: (12)..(80) 46 <400> SEQUENCE: 1 47 gtccttccac c atg cac tcg ctg ggc ttc ttc tct gtg gcg tgt tct ctg 50 Met His Ser Leu Gly Phe Phe Ser Val Ala Cys Ser Leu 48 -20 49 98 51 etc gec get geg etg etc eeg ggt eet ege gag geg eee gee gee gee 52 Leu Ala Ala Ala Leu Leu Pro Gly Pro Arg Glu Ala Pro Ala Ala Ala -1 1 - 5 146 55 gcc gcc ttc gag tcc gga ctc gac ctc tcg gac gcg gag ccc gac gcg 56 Ala Ala Phe Glu Ser Gly Leu Asp Leu Ser Asp Ala Glu Pro Asp Ala 15 10 59 ggc gag gcc acg gct tat gca agc aaa gat ctg gag gag cag tta cgg 194 60 Gly Glu Ala Thr Ala Tyr Ala Ser Lys Asp Leu Glu Glu Gln Leu Arg 30 63 tot gtg too agt gta gat gaa oto atg act gta oto tao oca gaa tat 64 Ser Val Ser Ser Val Asp Glu Leu Met Thr Val Leu Tyr Pro Glu Tyr 50 45 67 tgg aaa atg tac aag tgt cag cta agg aaa gga ggc tgg caa cat aac 68 Trp Lys Met Tyr Lys Cys Gln Leu Arg Lys Gly Gly Trp Gln His Asn

Input Set : D:\PF112U1.txt

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72 7	Ara	Glu	Gln	Ala	Asn	Leu	Asn	Ser	Arg	Thr	Ğlu	Glu	Thr	Ile	Lys	Phe		
73	,				75					80					85			
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76 7	Ala	Ala	Ala	His	Tvr	Asn	Thr	Ğlu	Ile	Leu	Lys	Ser	Île	Asp	Asn	Glu		
77				90	-1-				95		-			100				
	taa	aαa	aaσ	act.	caa	tac	atq	сса	cqq	qaq	gtg	tqt	ata	gat	gtg	ggg	4	134
80 7	rrn Trn	Ara	Lvs	Thr	Gln	Cvs	Met	Pro	Arg	Glu	Val	Cys	Ile	Asp	Val	Gly		
81			105			-4-		110	,			-	115	•		_		
	nse	σασ		gga	atc	aca	aca		acc	ttc	ttt	aaa	cct	cca	tgt	qtq	4	182
84 1	ive	Glu	Phe	Glv	Val	Ala	Thr	Asn	Thr	Phe	Phe	Lvs	Pro	Pro	Cys	Val		
85	J, J	120		0-1			125					130			•			
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88 9	Ser	Val	Tvr	Ara	Cvs	Glv	Glv	Cvs	Cvs	Asn	Ser	Ğlu	Gly	Leu	Gln	Cys		
89 1		, 41	+1-	5	-1-	140	1	- 1 -			145		-			150		
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92 1	Met	Asn	Thr	Ser	Thr	Ser	Tvr	Leu	Ser	Lvs	Thr	Leu	Phe	Ğlu	Ile	Thr		
93	.100	11511	1111	001	155	001	-1-			160					165			
	nta	cct	ctc	tct		aac	CCC	aaa	сса		aca	at.c	agt	ttt	gcc	aat	6	526
96 1	g Lg Val	Pro	I.eu	Ser	Gln	Glv	Pro	Lvs	Pro	Val	Thr	Ile	Ser	Phe	Ala	Asn		
97	· u ·	110	шец	170	04	O I J			175					180				
	cac	act	tcc		сда	tac	ato	tct		cta	αat.	att	tac		caa	att	. (	674
100	Hic	Thi	Sei	· Cvc	: Aro	Cvs	Met	Ser	tivs	Lei	ı Ast	Va]	LTvi	Arc	Glr	Val		
101	1112	1111	185		, ,,,,		1100	190					195		,			
	cat	too			ада	cat	too			a aca	a aca	a cta			a tat	cag		722
103	His	. CC	~ T14	. Tle	Aro	. Ara	Ser	Lei	Pro	Ala	Thr	Lei	ı Pro	Glr	Cvs	Gln		
105	1113	200		, 110	- 1119	1 11-9	205			,		210			2			
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107	Δla	Δ1:	, aut	Live	Thr	Cve	Pro	Thr	Asr	n Tvr	· Met	Tri	Asr	ı Ası	n His	: Ile		
100			, noi	LLYL	, 1111	220				. +1-	225					230		
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112	Cvs	. Arc	CV	Lei	ı Ala	Gln	Glu	Asr	Phe	e Met	Phe	. Sei	. Sei	Ası	Ālā	Gly		
113	Cys		, 010	, . 1100	235		. 010			240				•	245			
	gat	gad	tea	aca			tto	cat	gad			: aaa	a cca	aaa	aac	gag		866
116	Acr	Δer	Sei	Thr	Asr	. Glv	Phe	His	Ası	lle Tle	e Cvs	Gly	Pro	o Ası	n Lys	Glu		
117	Lot	, Y2F	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	250		, 011	1 110		255		. 011			260				
	ata	r mat	- maa			tat	cac	tat			e aga	a acc	a aac	cti	t cac	cct		914
120	T.eu	Δer	Gli	. Gl:	Thr	Cvs	Gln	Cvs	· Val	Cvs	Arc	ı Ala	GIV	, Lei	ı Arc	Pro		
121	пес	r vo	265			Cys	011	270		. 01.		,	275			,		
	acc	· ann			CCC	· cac	. aaa			gac	r aσa	a aad			cac	, tgt		962
124	Δla	Sei	Cve	- 990 : Glv	Pro	His	Lvs	Gli	Lei	ı Asr	Arc	ı Ası	Sei	. Cvs	s Glr	Cys		
125	riiu	280		, 011	110		285					290		- 1		•		
	ato			aac	· aaa	cto			: ago	caa	a tat			aad	c cqa	gaa	-	1010
128	Val	, Ly (	: Lauc	. Acr	Lve	Leu	Phe	Pro	Sei	. G]r	CVS	Glv	Ala	a Ası	n Arc	Glu		
129			יער	١٠٠١،		300					305				-	310		
			. das	aac	aca			t.at	ata	a tat			a acc	t ta	e ccc	aga		1058
132	Phe	. yat	Gli	Agr	Thr	Cvs	Gln	Cvs	. Val	Cvs	Lvs	arc	Thi	CVS	s Pro	Arg		
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Input Set : D:\PF112U1.txt

Output Set: N:\CRF3\03162001\I499468.raw

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		tgt															1202
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145		360					365					370					
		ttt			_	-	_		_	-	-	-					1250
		Phe	Ser	Tyr	Ser	Glu	Glu	Val	Cys	Arg	Cys	Val	Pro	Ser	Tyr		
	375					380					385					390	
		aga					taa	gatte	gta d	ctgti	cttc	ca gi	tcat	cga	t		1298
	Gln	Arg	Pro	Gln		Ser											
153					395												
						-	_		-	-	-		_	- '		cccttg	1358
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																caatga	1478
			,				_	_			_		-			ttattt	1538
																ctcact	1598
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178	710	T a.s	T	-20 Dec	C1	Dwa	<b>7</b>	C1		Dwo	x 1 a	7.1.	712		7 1 n	Dho	
182	Ala	Leu	_5	PTO	СТУ	PIO	-1	1	Ald	PIO	Ald	Ala	Ald	Ald	нта	rne	
	Clu	Ser		LOU	λcn	Lou	_	_	7 1 a	C1	Pro	) J	λla	C1 v	C1n	7 <b>1</b> a	
186		ser	СТУ	цец	АЗР	15	Set	Asp	АТа	Gru	20	АЗР	Ald	Gry	GIU	25	
		Ala	ω <sub>22.2</sub>	λla	Sar		λen	I Au	Glu	Glu		Lau	λνα	Sar	Va 1		
190	T 11T	ALG	1 Y T	AIG	30	пуз	тэр	цец	Giu	35	GIII	пец	пгу	Jei	40	561	
	Ser	Val	Δen	Glu		Met	Thr	Va 1	Leu		Pro	Glu	Tvr	Tro		Met	
194	DCI	, a i	пор	45	Dou	TICC	1111	· u i	50	-1-	110	014	-1-	55	<i>L</i> <sub>1</sub> <i>S</i>		
	Tyr	Lys	Cvs		Len	Ara	Lvs	G1v		Tro	Gln	His	Asn		Glu	Gln	
198	~ 1 ~	2,0	60	0	200		_10	65	<b>Q L</b> 1				70	5			
	Ala	Asn		Asn	Ser	Ara	Thr	Glu	Glu	Thr	Ile	Lvs	Phe	Ala	Ala	Ala	
202		75				5	80					85					
	His	Tyr	Asn	Thr	Glu	Ile		Lvs	Ser	Ile	asp		Glu	Trp	Ara	Lvs	
206		-1-				95		-1-			100					105	
		0.1	Cuc	Mot	Dro		Glu	Val	Cys	Ile		Val	Glv	Lys	Glu		
	Thr	GIn	CVS	MEC	FIU				4 -		. T.		. 4				
210	Thr	GIn	Cys	мес	110	5				115				_	120		
210					110			Phe	Lys		Pro	Cys	Val		120		
210		Val			110			Phe	Lys 130		Pro	Cys	Val		120		
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225	Ser	Gln	Gly	Pro	Lys		Val	Thr	He	Ser		Ala	Asn	HIS	Thr		
226						175					180				_	185	
229	Cys	Arg	Cys	Met	Ser	Lys	Leu	Asp	Val		Arg	Gln	Val	His	Ser	Ile	
230					190					195					200		
233	Ile	Arg	Arg	Ser	Leu	Pro	Ala	Thr	Leu	Pro	Gln	Cys	Gln	Ala	Ala	Asn	
234				205					210					215			
237	Lys	Thr	Cys	Pro	Thr	Asn	Tyr	Met	Trp	Asn	Asn	His	Ile	Cys	Arg	Cys	
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	Thr	Asp	Glv	Phe	His	Asp	Ile	Cys	Gly	Pro	Asn	Lys	Glu	Leu	Asp	Glu	
	250		1	•		255		•	•		260	-				265	
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250	OIU	1111	010	01	270		<b>-</b> 1	5		275		_			280	-	
	Clv	Dro	Hic	T.v.c		I.e.11	Asn	Ara	Asn		Cvs	Gln	Cvs	Val	Cys	Lvs	
254	GIÀ	FIO	1113	285	OLU	nc u	r.op		290	501	0,0		-1-	295	-1-	2 -	
	Nan	T	Lou		Dro	Cor	Gln	Cue		Δla	Δcn	Ara	Glu		Asp	Glu	
	ASII	гур		rne	PIO	261	GIII	305	OLY	пта	non	111 9	310	1		014	
258		m 1	300	01	C	17 n 1	Cura		λνα	Thr	Cur	Dro		Δen	Gln	Pro	
	ASI		Cys	GIII	Cys	val		пуъ	Arg	1111	Cys	325	AI 9	N311	OIII	110	
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	330	_	_	_	1	335	<b>.</b>	Di-	TT 2 -	rr 2 -	340	mh w	Crra	Cor	Cvc		
	Cys	Leu	Leu	Lys		Lys	Lys	Pne	HIS		GIN	THE	Cys	ser	Cys	TAT	
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Input Set : D:\PF112U1.txt

Output Set: N:\CRF3\03162001\I499468.raw

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373	D 1	115	T7 -	C +	Dl	n 1 m	120	11: ~	m h so	Con	Crrc	125	Cuc	Mot	Sor	
	Pro Val		iie	ser	Pne	135	ASII	HIS	THE	261	140	Arg	Cys	nec	ser	
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FYI

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/499,468

DATE: 03/16/2001 TIME: 15:36:21

Input Set : D:\PF112U1.txt

Output Set: N:\CRF3\03162001\1499468.raw

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